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PATENT
Client Reference No.: DX0725K2B

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By: Jean Caplell

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Hedrick, J. et al.

Application No.: Unassigned

Filed: Herewith

For: MAMMALIAN CYTOKINES; RELATED REAGENTS AND METHODS

Examiner: Unassigned

Art Unit: Unassigned

PRELIMINARY AMENDMENT

Assistant Commissioner for Patents
Washington, D.C. 20231

Sir:

Prior to examination of the above-referenced application, please enter the following amendments and remarks. Applicants note that the subject application is a divisional of USSN 09/130,972 in which there is an outstanding Office Action mailed July 28, 2000. In order to keep co-pendency, a copy of the petition for extension of time in the noted parent application is being submitted herewith as a separate document.

IN THE SPECIFICATION

At page 1, line 1, please delete "This filing" and substitute therewith:

--This application is a divisional of USSN 09/130,972, filed August 7, 1998, which--

IN THE CLAIMS

Please cancel claims 1-6, and 11-19.

Please amend claims 7, 8, and 20 as follows:

7. (Amended) A binding compound comprising an antigen binding site from an antibody, which specifically binds to a mature polypeptide comprising at least 8 contiguous amino acid residues from[:

a)] SEQ ID NO: 2[;

b) SEQ ID NO: 6;

c) SEQ ID NO: 13; or

d) SEQ ID NO: 15].

8. (Amended) The binding compound of Claim 7, wherein[:

a)] said binding compound is an Fv, Fab, or Fab2 fragment[;

b) said binding compound is conjugated to another chemical moiety; or

c) said antibody:

i) is raised against a polypeptide comprising a 12 consecutive amino acid segment of SEQ ID NO: 2, 6, 13, or 15;

ii) is raised against a mature IL-1ε;

iii) is raised to a purified rodent IL-1δ or rodent or primate IL-1ε;

iv) is immunoselected;

v) is a polyclonal antibody;

vi) binds to a denatured IL-1δ or IL-1ε;

vii) exhibits a Kd to antigen of at least 30 μM;

viii) is attached to a solid substrate, including a bead or plastic membrane;

ix) is in a sterile composition; or

x) is detectably labeled, including a radioactive or fluorescent label].

20. (Amended) A method of:

A) making an antiserum comprising an antibody of Claim 7, comprising immunizing a mammal with an immunogenic amount of [:

a) a rodent IL-1δ polypeptide;

b)] a peptide [sequence] comprising a 12 consecutive amino acid segment of SEQ ID NO: 2;

[c) a rodent or primate IL-1ε polypeptide; or

d) a peptide sequence comprising a 12 consecutive amino acid segment of SEQ ID NO: 6, 13, or 15;]

thereby causing said antiserum to be produced; or

B) producing an antigen:antibody complex, comprising contacting [:

a)] a rodent IL-1δ protein or peptide with [an antibody] a binding compound of Claim 7; [or

b) a rodent or primate IL-1ε protein or peptide with an antibody of Claim 7;]

thereby allowing said complex to form.

Please add new claims 21-25 as follows:

21. (New) The binding compound of Claim 7, wherein said antibody is a polyclonal antibody.

22. (New) The binding compound of Claim 7, wherein said antibody is detectably labeled.

23. (New) The binding compound of claim 7, wherein said at least 8 contiguous amino acid residues of SEQ ID NO:2 is selected from the group consisting of residues 8-24; 27-48; 56-73; 77-106; 108-125; 130-156; and 74-98.

24. (New) The binding compound of claim 7, wherein said polypeptide comprises at least 12 contiguous amino acid residues from SEQ ID NO: 2.

25. (New) The binding compound of claim 24, wherein said 12 consecutive amino acid segment is selected from:

(1) LeuCysPheArgMetLysAspSerAlaLeuLysValLeuTyrLeuHisAsn-Asn;

(2) IleSerValValProAsnArgAlaLeuAspAlaSerLeuSerProValIle-LeuGlyValGln;

(3) SerProValIleLeuGlyValGlnGlyGlySerGlnCys;

(4) ProIleLeuLysLeuGluProValAsnIleMetGluLeu;

(5) ThrSerSerPheGluSerAlaAlaTyrProGlyTrpPhe;

(6) PheLeuCysThrSerProGluAlaAspGlnProVal;

(7) ThrGlnIleProGluAspProAlaTrpAspAlaProIle; or

(8) ThrSerSerPheGluSerAlaAlaTyrProGlyTrpPhe.

REMARKS

Applicants have amended claims 8-10, and 20, and added new claims to more particularly point out and distinctly claim embodiments of the subject invention that are directed to binding compositions raised against IL-1δ peptides. After entry of this amendment, claims 7-10, and 20-25 are pending in the application and are attached at the end of this document.

The recitation of "at least 8 contiguous amino acid" in claim 7 has support in the specification, e.g., at page 25, line 29. New claims 21 and 22 correspond to the originally filed claim 8c(v) and 8c(x), respectively. Support for new claim 23 is found in the specification, e.g., page 48, line 35 to page 49, line 2; page 90, line 25 to page 91, line 14; page 40, lines 21-26; and page 43, line 4. New claim 24 has support in the specification, e.g., in the original claim 8c(i). Support for new claim 25 is found, e.g., in claim 3 as originally filed. No new matter has been introduced by the claim amendments and new claims.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 650-326-2400.

Respectfully submitted,

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PENDING CLAIMS

7. (Amended) A binding compound comprising an antigen binding site from an antibody, which specifically binds to a mature polypeptide comprising at least 8 contiguous amino acid residues from SEQ ID NO: 2.

8. (Amended) The binding compound of Claim 7, wherein said binding compound is an Fv, Fab, or Fab2 fragment.

9. A kit comprising said binding compound of Claim 7, and:
a) a compartment comprising said binding compound; and/or
b) instructions for use or disposal of reagents in said kit.

10. A composition comprising:
a) a sterile binding compound of Claim 7, or
b) said binding compound of Claim 7 and a carrier, wherein said carrier is:
i) an aqueous compound, including water, saline, and/or buffer; and/or
ii) formulated for oral, rectal, nasal, topical, or parenteral administration.

20. (Amended) A method of:
A) making an antiserum comprising an antibody of Claim 7, comprising immunizing a mammal with an immunogenic amount of a peptide comprising a 12 consecutive amino acid segment of SEQ ID NO: 2; thereby causing said antiserum to be produced; or
B) producing an antigen:antibody complex, comprising contacting a rodent IL-1δ protein or peptide with a binding compound of Claim 7; thereby allowing said complex to form.

21. (New) The binding compound of Claim 7, wherein said antibody is a polyclonal antibody.

22. (New) The binding compound of Claim 7, wherein said antibody is detectably labeled.

23. (New) The binding compound of claim 7, wherein said at least 8 contiguous amino acid residues of SEQ ID NO:2 is selected from the group consisting of residues 8-24; 27-48; 56-73; 77-106; 108-125; 130-156; and 74-98.

24. (New) The binding compound of claim 7, wherein said polypeptide comprises at least 12 contiguous amino acid residues from SEQ ID NO: 2.

25. (New) The binding compound of claim 24, wherein said 12 consecutive amino acid segment is selected from:

(1) LeuCysPheArgMetLysAspSerAlaLeuLysValLeuTyrLeuHisAsn-Asn;
(2) IleSerValValProAsnArgAlaLeuAspAlaSerLeuSerProValIle-LeuGlyValGln;
(3) SerProValIleLeuGlyValGlnGlyGlySerGlnCys;
(4) ProIleLeuLysLeuGluProValAsnIleMetGluLeu;
(5) ThrSerSerPheGluSerAlaAlaTyrProGlyTrpPhe;
(6) PheLeuCysThrSerProGluAlaAspGlnProVal;
(7) ThrGlnIleProGluAspProAlaTrpAspAlaProIle; or
(8) ThrSerSerPheGluSerAlaAlaTyrProGlyTrpPhe.